

REMARKS

In the final Office Action, the Examiner rejected claims 1-18 under 35 U.S.C. § 102(e) as anticipated by Kajitani et al. (U.S. Patent No. 6,643,254).

By this Amendment, Applicant proposes amending the title and claims 1-3, 5-11, 13, 14, and 16-18 to improve form. Applicant respectfully traverses the Examiner's rejection under 35 U.S.C. § 102. Claims 1-18 remain pending.

At the outset, Applicant respectfully submits that the finality of the Office Action, dated August 8, 2005, is improper. In the previous Office Action, dated February 10, 2005, the Examiner rejected claim 8 under 35 U.S.C. § 112, but did not reject claim 8 under 35 U.S.C. § 102 or 103. Applicant subsequently filed an Amendment on April 25, 2005, with a minor change to claim 8. In the final Office Action, dated August 8, 2005, the Examiner newly rejected claim 8 under 35 U.S.C. § 102 as anticipated by Kajitani et al. The Examiner made the rejection final.

M.P.E.P. § 706.07(a) states that "second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 C.F.R. 1.97(c) with the fee set forth in 37 C.F.R. 1.17(p)." The change Applicant made to claim 8 in the previously filed Amendment could not have necessitated the Examiner's application of a new ground of rejection. Further, the Kajitani et al. reference was not cited by Applicant in an Information Disclosure Statement filed during the period set forth in 37 C.F.R. 1.97(c). Accordingly, Applicant submits that the finality of the Office Action, dated August 8, 2005, is improper. Withdrawal of the finality of the Office Action is, therefore, respectfully requested.

At paragraphs 23-34 of the final Office Action, the Examiner rejected claims 1-18 under 35 U.S.C. § 102(e) as allegedly anticipated by Kajitani et al. Applicant respectfully traverses the rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention either expressly or impliedly. Any feature not directly taught must be inherently present. In other words, the identical invention must be shown in as complete detail as contained in the claim. See M.P.E.P. § 2131. Kajitani et al. does not disclose or suggest the combination of features recited in claims 1-18.

Amended independent claim 1, for example, is directed to a PVC switching control method for controlling a PVC connection in a communication network. The PVC switching control method comprises setting a plurality of PVC connections and individually corresponding controlling connections between two exchanges of the communication network; detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection; and switching an operative PVC connection to another one of the PVC connections in response to a result of the detection.

Kajitani et al. does not disclose or suggest the combination of features recited in amended claim 1. For example, Kajitani et al. does not disclose or suggest setting a plurality of PVC connections and individually corresponding controlling connections between two exchanges of a communication network.

The Examiner alleged that Kajitani et al. discloses these features and cited column 2, lines 31-37, of Kajitani et al. for support (final Office Action, paragraph 24). Applicant respectfully disagrees.

At column 2, lines 31-37, Kajitani et al. discloses:

In accordance with one aspect of the present invention, there is provided a method of rerouting a PVC route on an ATM network, including steps of: previously defining an alternate route for the PVC route which is managed in an ATM network managing system; and switching the PVC route to a previously defined alternate route when a fault occurs in a network element forming the PVC route.

While this section of Kajitani et al. may disclose switching from a PVC route to an alternate route when a fault occurs, nowhere in this section, or elsewhere, does Kajitani et al. disclose or suggest setting a plurality of PVC connections and individually corresponding controlling connections between two exchanges of a communication network, as required by claim 1. In fact, Kajitani et al. does not disclose anything similar to controlling connections that are set between two exchanges.

In response to similar arguments presented in a previous Amendment, the Examiner alleged that Kajitani et al. discloses these features and quoted portions of column 2, lines 31-37, of Kajitani et al. (final Office Action, paragraphs 4 and 5). Applicant respectfully submits that the Examiner is ignoring features of claim 1.

At best, Kajitani et al. can be construed to include a plurality of PVC connections (a PVC route and an alternate route for the PVC route) (col. 2, lines 31-37). Nowhere does Kajitani et al. disclose or suggest setting individually controlling connections between two exchanges of a communication network, as required by claim 1. The Examiner has not yet addressed the setting of controlling connections and, therefore, has not established a proper case of anticipation with regard to claim 1.

If the Examiner persists with a rejection of setting a plurality of PVC connections and individually corresponding controlling connections between two exchanges of a communication

network based on Kajitani et al., Applicant respectfully requests that the Examiner, rather than just quoting portions of Kajitani et al., specifically explain how the identified section of Kajitani et al. allegedly reads on setting a plurality of PVC connections and individually corresponding controlling connections between two exchanges of a communication network.

Kajitani et al. also does not disclose or suggest detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection, as further required by claim 1.

The Examiner alleged that Kajitani et al. discloses these features and cited column 2, lines 31-44, of Kajitani et al. for support (final Office Action, paragraph 24). Applicant respectfully disagrees.

At column 2, lines 31-44, Kajitani et al. discloses:

In accordance with one aspect of the present invention, there is provided a method of rerouting a PVC route on an ATM network, including steps of: previously defining an alternate route for the PVC route which is managed in an ATM network managing system; and switching the PVC route to a previously defined alternate route when a fault occurs in a network element forming the PVC route.

In a preferred embodiment, the method of rerouting the PVC route further includes step of determining an order of relief for a plurality of PVC routes in accordance with information of importance in which each PVC route previously holds when the fault occurs, and a step of rerouting the PVC route based on the order of relief.

Nowhere in this section, or elsewhere, does Kajitani et al. disclose or suggest detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection, as required by claim 1. Instead, Kajitani et al. discloses that when a fault occurs in a network element 10, fault notifying unit 12 of network element 10 notifies fault event analyzing unit 5 of network management system 1 (Fig. 1, col. 8, lines 56-67).

Assuming, for the sake of argument, that network elements 10 can be equated to exchanges, nowhere does Kajitani et al. disclose that trouble in a PVC connection is detected by each of network elements 10, as required by claim 1. Further, nowhere does Kajitani et al. disclose or suggest that network elements 10 detect trouble through a corresponding controlling connection, as is also required by claim 1.

In response to similar arguments in a previous Amendment, the Examiner alleged that Kajitani et al. discloses these features and quoted portions of column 2, lines 31-44, of Kajitani et al. As explained above, this section of Kajitani et al. does not disclose or suggest detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection, as required by claim 1.

If the Examiner persists with the rejection of detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection based on Kajitani et al., Applicant respectfully requests that the Examiner, rather than just quoting portions of Kajitani et al., explain how the identified section of Kajitani et al. allegedly reads on detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection.

For at least these reasons, Applicant submits that claim 1 is not anticipated by Kajitani et al. Claims 2-6 depend from claim 1 and are, therefore, not anticipated by Kajitani et al. for at least the reasons given with regard to claim 1. Claims 2-6 are also not anticipated by Kajitani et al. for reasons of their own.

For example, amended claim 5 recites that each of the exchanges detects trouble through receipt of an alarm indication signal cell from the operation administration and maintenance

function over one of the controlling connections. Kajitani et al. does not disclose or suggest this combination of features.

The Examiner alleged that Kajitani et al. discloses these features and cited column 2, lines 31-44, column 4, lines 12-17, and column 10, lines 16-41, of Kajitani et al. for support (final Office Action, paragraph 28). Applicant respectfully disagrees.

Column 2, lines 31-44, of Kajitani et al. has been reproduced above. In this section, Kajitani et al. discloses switching the PVC route to a previously defined alternate route when a fault occurs in a network element forming the PVC route. Nowhere in this section, or elsewhere does Kajitani et al. disclose or suggest that each of the exchanges detects trouble through receipt of an alarm indication signal cell from the operation administration and maintenance function over one of the controlling connections, as required by claim 5.

At column 4, lines 12-17, Kajitani et al. discloses:

. . . the system includes: an ATM network resource managing unit for managing resources included in the ATM network; a PVC connection managing unit connected to the element data collecting unit through the communication network for managing the situation of the connection of the PVC route . . .

In this section, Kajitani et al. discloses elements associated with network management system 1 (Fig. 1; col. 8, lines 32-46). Kajitani et al. does not disclose or remotely suggest that network management system 1 is an exchange. Instead, Kajitani et al. appears to disclose that network elements 10 are exchanges (Fig. 1; col. 10, line 22). Nowhere in the section reproduced above, or elsewhere, does Kajitani et al. disclose or suggest that each of network elements 10 detects trouble through receipt of an alarm indication signal cell from an operation administration and maintenance function over a controlling connection, as required by claim 5.

At column 10, lines 16-41, Kajitani et al. discloses:

Next, one concrete example for the first embodiment is explained in detail with reference to FIGS. 20 and 21. FIG. 20 shows one example of a network system formed of the LAN, and FIG. 21 is an explanatory view of an alternate route when the fault occurs in the system shown in FIG. 20. In FIG. 20, TE1 to TE3 are terminals in the LAN, HC is a host computer, NE1 to NE5 are ATM exchanges, and VP#1 to VP#7 are virtual paths.

For example, when the fault occurs in the ATM exchange NE3, the alternate route is determined as follows.

In FIG. 21, first, a faulty event analyzing unit (FAULT-ANALYSIS) E5 detects the fault in the ATM exchange NE3 as the fault occurrence element (see step S1 in FIG. 2). Next, the faulty event analyzing unit E5 searches the PVC route including the ATM exchange NE3 from a faulty PVC route switching table E8 provided in an alternate route defining unit E6 (see step S2 in FIG. 2).

In this case, the following two routes are detected. That is, the first faulty element containing PVC route r_1 takes the route from the host computer $HC \rightarrow VP\#1 \rightarrow$ ATM exchange $NE1 \rightarrow VP\#3 \rightarrow$ ATM exchange $NE3 \rightarrow VP\#5 \rightarrow$ ATM exchange $NE5 \rightarrow$ LAN (TE1 to TE3), and the second faulty element containing PVC route r_2 takes the route from the host computer $HC \rightarrow VP\#2 \rightarrow$ ATM exchange $NE2 \rightarrow VP\#4 \rightarrow$ ATM exchange $NE3 \rightarrow VP\#5 \rightarrow$ ATM exchange $NE5 \rightarrow$ LAN (TE1 to TE3).

In this section, Kajitani et al. discloses that a fault in a PVC route is determined by a faulty event analyzing unit within a network management system. Kajitani et al. does not disclose or remotely suggest that the network management system is an exchange. Instead, Kajitani et al. appears to disclose that network elements 10 are exchanges (Fig. 1; col. 10, line 22). Nowhere in the section reproduced above, or elsewhere, does Kajitani et al. disclose or suggest that each of network elements 10 detects trouble through receipt of an alarm indication signal cell from an operation administration and maintenance function over a controlling connection, as required by claim 5.

In response to similar arguments presented in a previous Amendment, the Examiner quoted various portions of Kajitani et al. (final Office Action, paragraphs 8-13). The Examiner

has not explained, however, how these portions relate to the features of claim 5 because none of the portions appear to disclose or remotely suggest the features of claim 5.

For at least these additional reasons, Applicant submits that claim 5 is not anticipated by Kajitani et al.

Amended claim 6 recites that each of the exchanges detects trouble through failure to receive a continuity check cell from the operation administration and maintenance function over one of the controlling connections. Kajitani et al. does not disclose or suggest this combination of features.

The Examiner alleged that Kajitani et al. discloses these features and cited column 2, lines 31-44, column 4, lines 12-17, and column 10, lines 16-41, of Kajitani et al. for support (final Office Action, paragraph 29). Applicant respectfully disagrees.

Column 2, lines 31-44, column 4, lines 12-17, and column 10, lines 16-41, of Kajitani et al. have been reproduced above. At column 2, lines 31-44, Kajitani et al. discloses switching the PVC route to a previously defined alternate route when a fault occurs in a network element forming the PVC route. Nowhere in this section, or elsewhere does Kajitani et al. disclose or suggest that each of the exchanges detects trouble through failure to receive a continuity check cell from the operation administration and maintenance function over one of the controlling connections, as required by claim 6.

At column 4, lines 12-17, Kajitani et al. discloses elements associated with network management system 1 (Fig. 1; col. 8, lines 32-46). Kajitani et al. does not disclose or remotely suggest that network management system 1 is an exchange. Instead, Kajitani et al. appears to disclose that network elements 10 are exchanges (Fig. 1; col. 10, line 22). Nowhere in this

section, or elsewhere, does Kajitani et al. disclose or suggest that each of network elements 10 detects trouble through failure to receive a continuity check cell from the operation administration and maintenance function over a controlling connection, as required by claim 6.

At column 10, lines 16-41, Kajitani et al. discloses that a fault in a PVC route is determined by a faulty event analyzing unit within a network management system. Kajitani et al. does not disclose or remotely suggest that the network management system is an exchange. Instead, Kajitani et al. appears to disclose that network elements 10 are exchanges (Fig. 1; col. 10, line 22). Nowhere in this section, or elsewhere, does Kajitani et al. disclose or suggest that each of network elements 10 detects trouble through failure to receive a continuity check cell from the operation administration and maintenance function over a controlling connection, as required by claim 6.

In response to similar arguments presented in a previous Amendment, the Examiner quoted various portions of Kajitani et al. (final Office Action, paragraphs 8-11, 14, and 15). The Examiner has not explained, however, how these portions relate to the features of claim 6. Applicant submits that none of these portions appear to disclose or remotely suggest the features of claim 6.

For at least these additional reasons, Applicant submits that claim 6 is not anticipated by Kajitani et al.

Amended independent claim 7 is directed to a PVC switching control method for controlling a PVC connection in a communication network. The method comprises setting a master PVC connection and a master side operation administration and maintenance (OAM) connection corresponding to the master PVC connection between a first exchange and a second

exchange; setting a bypassing PVC connection prepared in advance for bypassing of the master PVC connection and a bypassing side OAM connection corresponding to the bypassing PVC connection between the first and second exchanges; and switching, if both of the first and second exchanges detect trouble of the master PVC connection through the master side OAM connection, the master PVC connection to the bypassing PVC connection at the first and second exchanges.

Kajitani et al. does not disclose or suggest the combination of features recited in amended claim 7. For example, Kajitani et al. does not disclose or suggest setting a master PVC connection and a master side operation administration and maintenance (OAM) connection corresponding to the master PVC connection between a first exchange and a second exchange.

The Examiner alleged that Kajitani et al. discloses these features and cited Fig. 1, Fig. 10, column 2, lines 31-44, and column 10, lines 16-41, of Kajitani et al. for support (final Office Action, paragraph 30). Applicant respectfully disagrees.

In Fig. 1, Kajitani et al. identifies a network management system (NMS) that controls the switching of a faulty PVC route to a predetermined alternate route (col. 8, lines 47-55). Nowhere with regard to Fig. 1, or elsewhere, does Kajitani et al. disclose or suggest setting a master PVC connection and a master side operation administration and maintenance (OAM) connection corresponding to the master PVC connection between a first exchange and a second exchange, as required by claim 7. In fact, Kajitani et al. does not disclose anything similar to a master side OAM connection that is set between a first exchange and a second exchange.

In Fig. 10, Kajitani et al. identifies that a PVC route can include a number of segments and alternate routes can be provided for each of the segments (col. 16, lines 36-45). Nowhere

with regard to Fig. 10, or elsewhere, does Kajitani et al. disclose or suggest setting a master PVC connection and a master side operation administration and maintenance (OAM) connection corresponding to the master PVC connection between a first exchange and a second exchange, as required by claim 7. In fact, Kajitani et al. does not disclose anything similar to a master side OAM connection that is set between a first exchange and a second exchange.

Column 2, lines 31-44, of Kajitani et al. has been reproduced above. While this section of Kajitani et al. may disclose switching from a PVC route to an alternate route when a fault occurs, nowhere in this section, or elsewhere, does Kajitani et al. disclose or suggest setting a master PVC connection and a master side OAM connection corresponding to the master PVC connection between a first exchange and a second exchange, as required by claim 7.

Column 10, lines 16-41, of Kajitani et al. has been reproduced above. At column 10, lines 16-41, Kajitani et al. discloses that a fault in a PVC route is determined by a faulty event analyzing unit within a network management system. Nowhere in this section, or elsewhere, does Kajitani et al. disclose or suggest setting a master PVC connection and a master side OAM connection corresponding to the master PVC connection between a first exchange and a second exchange, as required by claim 7.

In response to similar arguments presented in a previous Amendment, the Examiner quoted various portions of Kajitani et al. (final Office Action, paragraphs 16 and 17). The Examiner has not explained, however, how any of these quoted portions relate to the setting of a master side OAM connection corresponding to a master PVC connection between a first exchange and a second exchange, as required by claim 7. If the Examiner persists with this

rejection, Applicant respectfully requests that the Examiner specifically identify what it is in Kajitani et al. that allegedly corresponds to a master side OAM connection, as recited in claim 7.

Kajitani et al. also does not disclose or suggest setting a bypassing PVC connection prepared in advance for bypassing of the master PVC connection and a bypassing side OAM connection corresponding to the bypassing PVC connection between the first and second exchanges, as further recited in claim 7.

The Examiner alleged that Kajitani et al. discloses these features and cited Fig. 1, Fig. 10, column 2, lines 31-44, and column 10, lines 16-41, of Kajitani et al. for support (final Office Action, paragraph 30). Applicant respectfully disagrees.

Fig. 1, Fig. 10, column 2, lines 31-44, and column 10, lines 16-41, of Kajitani et al. have been discussed in detail above. For reasons similar to those given above, Applicant submits that Kajitani et al. does not disclose or suggest setting a bypassing PVC connection prepared in advance for bypassing of the master PVC connection and a bypassing side OAM connection corresponding to the bypassing PVC connection between the first and second exchanges, as required by claim 7.

In response to similar arguments presented in a previous Amendment, the Examiner quoted various portions of Kajitani et al. (final Office Action, paragraphs 18 and 19). The Examiner has not explained, however, how any of these quoted portions relate to the setting of a bypassing side OAM connection corresponding to the bypassing PVC connection between the first and second exchanges, as required by claim 7. If the Examiner persists with this rejection, Applicant respectfully requests that the Examiner specifically identify what it is in Kajitani et al. that allegedly corresponds to a bypassing side OAM connection, as recited in claim 7.

Kajitani et al. also does not disclose or suggest switching, if both of the first and second exchanges detect trouble of the master PVC connection through the master side OAM connection, the master PVC connection to the bypassing PVC connection at the first and second exchanges, as further recited in claim 7.

The Examiner alleged that Kajitani et al. discloses these features and cited Fig. 1, Fig. 10, column 2, lines 31-44, and column 10, lines 16-41, of Kajitani et al. for support (final Office Action, paragraph 30). Applicant respectfully disagrees.

Fig. 1, Fig. 10, column 2, lines 31-44, and column 10, lines 16-41, of Kajitani et al. have been discussed in detail above. Nowhere in connection with these portions of Kajitani et al. does Kajitani et al. disclose or suggest switching, if both of the first and second exchanges detect trouble of the master PVC connection through the master side OAM connection, the master PVC connection to the bypassing PVC connection at the first and second exchanges, as required by claim 7.

Because Kajitani et al. does not disclose or suggest a master side OAM connection, Kajitani et al. cannot disclose or suggest switching a master PVC connection to a bypassing PVC connection if both of the first and second exchanges detect trouble of the master PVC connection through the master side OAM connection, as required by claim 7. In fact, Kajitani et al. teaches against these features. At column 10, lines 16-61, Kajitani et al. specifically describes that a faulty event analyzing unit within the network management system (NMS), not an ATM exchange, detects a fault in an ATM exchange and determines an alternate PVC route.

In response to similar arguments presented in a previous Amendment, the Examiner quoted various portions of Kajitani et al. (final Office Action, paragraphs 20 and 21). The

Examiner has not explained, however, how any of these quoted portions relate to the switching, if both of the first and second exchanges detect trouble of the master PVC connection through the master side OAM connection, of the master PVC connection to the bypassing PVC connection at the first and second exchanges, as required by claim 7. If the Examiner persists with this rejection, Applicant respectfully requests that the Examiner specifically identify where Kajitani et al. allegedly discloses switching if both first and second exchanges detect trouble of the master PVC connection through the master side OAM connection, as recited in claim 7.

For at least these reasons, Applicant submits that claim 7 is not anticipated by Kajitani et al. Claims 8-10 depend from claim 7 and are, therefore, not anticipated by Kajitani et al. for at least the reasons given with regard to claim 7. Claims 8-10 are also not anticipated by Kajitani et al. for reasons of their own.

For example, claim 8 recites that if, while the first and second exchanges use the bypassing PVC connection, the first and second exchanges detect a release of the master PVC connection through the master side OAM connection, each of the first and second exchanges switches the PVC connection to the master PVC connection. Kajitani et al. does not disclose or suggest these features.

The Examiner alleged "[c]laim 8 does not teach or define any new limitations above claim 7 and therefore is rejected for similar reasons" (final Office Action, paragraph 31). Applicant submits that the Examiner's dismissal of the features of claim 8 is improper and falls short of establishing a proper case of anticipation with regard to claim 8.

For at least these additional reasons, Applicant submits that claim 8 is not anticipated by Kajitani et al.

Amended independent claim 11 recites features similar to features recited in claim 1.

Claim 11 is, therefore, not anticipated by Kajitani et al. for at least reasons similar to reasons given with regard to claim 1. New claims 12-17 depend from claim 11 and are, therefore, not anticipated by Kajitani et al. for at least the reasons given with regard to claim 11.

Amended independent claim 18 recites some features similar to features recited in claim 7. Claim 18 is, therefore, not anticipated by Kajitani et al. for at least reasons similar to reasons given with regard to claim 7.

In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of the application and the timely allowance of pending claims 1-18.

In the event that the Examiner does not withdraw the finality of the Office Action, Applicant respectfully requests that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-18 in condition for allowance.

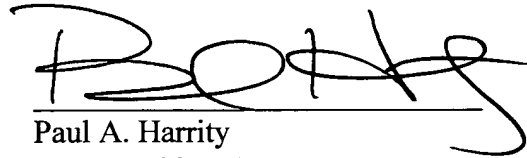
If the Examiner does not believe that all pending claims are now in condition for allowance, the Examiner is urged to contact the undersigned to expedite prosecution of this application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

A handwritten signature in black ink, appearing to read "Paul A. Harrity", written over a horizontal line.

Paul A. Harrity
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Date: September 19, 2005

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